

83. The modified cellulase of claim 79, comprising a substitution at position 7.
84. The modified cellulase of claim 79, comprising a substitution at position 8.
85. The modified cellulase of claim 79, comprising a substitution at position 9.
86. The modified cellulase of claim 79, comprising a substitution at position 10.
87. The modified cellulase of claim 79, comprising a substitution at position 11.
88. The modified cellulase of claim 79, comprising a substitution at position 12.
89. The modified cellulase of claim 79, comprising a substitution at position 13.
90. The modified cellulase of claim 79, comprising a substitution at position 14.
91. The modified cellulase of claim 79, comprising a substitution at position 15.
92. The modified cellulase of claim 79, comprising a substitution at position 16.
93. The modified cellulase of claim 79, comprising a substitution at position 18.
94. The modified cellulase of claim 79, comprising a substitution at position 19.
95. The modified cellulase of claim 79, comprising a substitution at position 20.
96. The modified cellulase of claim 79, comprising a substitution at position 21.
97. The modified cellulase of claim 79, comprising a substitution at position 21a.
98. The modified cellulase of claim 79, comprising a substitution at position 42.
99. The modified cellulase of claim 79, comprising a substitution at position 44.

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100. The modified cellulase of claim 79, comprising a substitution at position 45.
101. The modified cellulase of claim 79, comprising a substitution at position 47.
102. The modified cellulase of claim 79, comprising a substitution at position 48.
103. The modified cellulase of claim 79, comprising a substitution at position 49.
104. The modified cellulase of claim 79, comprising a substitution at position 49a.
105. The modified cellulase of claim 79, comprising a substitution at position 49b.
106. The modified cellulase of claim 79, comprising a substitution at position 74.
107. The modified cellulase of claim 79, comprising a substitution at position 82.
108. The modified cellulase of claim 79, comprising a substitution at position 95j.
109. The modified cellulase of claim 79, comprising a substitution at position 110.
110. The modified cellulase of claim 79, comprising a substitution at position 111.
111. The modified cellulase of claim 79, comprising a substitution at position 112.
112. The modified cellulase of claim 79, comprising a substitution at position 113.
113. The modified cellulase of claim 79, comprising a substitution at position 114.
114. The modified cellulase of claim 79, comprising a substitution at position 115.
115. The modified cellulase of claim 79, comprising a substitution at position 116.
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116. The modified cellulase of claim 79, comprising a substitution at position 119.
117. The modified cellulase of claim 79, comprising a substitution at position 121.
118. The modified cellulase of claim 79, comprising a substitution at position 123.
119. The modified cellulase of claim 79, comprising a substitution at position 127.
120. The modified cellulase of claim 79, comprising a substitution at position 128.
121. The modified cellulase of claim 79, comprising a substitution at position 129.
122. The modified cellulase of claim 79, comprising a substitution at position 130.
123. The modified cellulase of claim 79, comprising a substitution at position 131.
124. The modified cellulase of claim 79, comprising a substitution at position 132.
125. The modified cellulase of claim 79, comprising a substitution at position 132a.
126. The modified cellulase of claim 79, comprising a substitution at position 133.
127. The modified cellulase of claim 79, comprising a substitution at position 145.
128. The modified cellulase of claim 79, comprising a substitution at position 146.
129. The modified cellulase of claim 79, comprising a substitution at position 147.
130. The modified cellulase of claim 79, comprising a substitution at position 148.
131. The modified cellulase of claim 79, comprising a substitution at position 149.
132. The modified cellulase of claim 79, comprising a substitution at position 150b.

133. The modified cellulase of claim 79, comprising a substitution at position 178.
134. The modified cellulase of claim 79, comprising a substitution at position 179.
135. The modified cellulase of claim 79, wherein the cellulase has an amino acid sequence of SEQ ID NO: 1.
136. The modified cellulase of claim 79, wherein the cellulase has an amino acid sequence of SEQ ID NO: 5.
137. The modified cellulase of claim 79, wherein the cellulase has an amino acid sequence of SEQ ID NO: 10.
138. The modified cellulase of claim 74, comprising  
R4H+A63R+N65R+D67R,  
R4H+R158E+D161P+A162P,  
R4H+D161P+A162P+R196E,  
Y8F+W62E+A162P,  
Y8F+W62E+R252L+Y280F,  
C16M+C86G,  
E48D/P49\*, or  
E48N/P49\*.
139. The modified cellulase of claim 79, wherein the one or more substitutions are:  
R4H, R4Q, V4R, or Y4R;  
T6S;  
R7I or R7W;  
Y8F;  
W9F;  
C12G or C12M;  
K13L, K13Q, K13R, or L13K;  
A14P, P14A, or P14T;

H15S, S15H, or S15T;  
C16M;  
W18F or W18Y;  
A19G, A19P, A19S, A19T, or P19A;  
A20E, A20G, A20K, E20A, E20G, E20K, G20A, G20E, G20K, K20A, K20E, or K20G;  
K21N or N21K;  
D42W or D42Y;  
Q44K;  
N45S, S45N, or S45T;  
C47G or C47M;  
D48E, D48N, E48D, E48N, E48Q, N48D, or N48E;  
A74F or F74A;  
N110S or S110N;  
I111T, I111V, T111H, T111V, V111I, or V111T;  
G113Y or Y113G;  
D114N;  
L115I, L115V, or V115L;  
G116D, G116Q, G116S, Q116G, Q116S, S116G, or S116Q;  
H119F, H119N, H119Q, H119R, N119H, N119Q, or Q119H;  
N123A, N123D, N123M, N123Q, or N123Y;  
L129V or V129L;  
A131I, A131L, I131A, I131L, L131A, or L131I;  
F132D;  
D133N or Q133D;  
Q146R or R146Q;  
Y147C, Y147D, Y147F, Y147G, Y147H, Y147K, Y147N, Y147Q, Y147R, Y147S, Y147V,  
or Y147W;  
D178N, D178P, or P178D; or  
N179V or V179N.

(140)

The modified cellulase of claim 79, wherein one of the substitutions is Q119H.

(141) The modified cellulase of claim 140, wherein the cellulase has an amino acid sequence of  
SEQ ID NO: 5

(142) The modified cellulase of claim 79, wherein the one or more substitutions are:

a substitution of the amino acid at position 4 with H, K, M, Q, R, V, or Y;

a substitution of the amino acid at position 5 with A, S, or T;

a substitution of the amino acid at position 6 with S or T;

a substitution of the amino acid at position 7 with I, K, L, R, or W;

a substitution of the amino acid at position 8 with F or Y;

a substitution of the amino acid at position 9 with F, W, or Y;

a substitution of the amino acid at position 10 with D;

a substitution of the amino acid at position 13 with K or L;

a substitution of the amino acid at position 14 with A or P;

a substitution of the amino acid at position 15 with H or S;

a substitution of the amino acid at position 16 with A or C;

a substitution of the amino acid at position 19 with A, D, E, P, S, or T;

a substitution of the amino acid at position 20 with A, E, G, or K;

a substitution of the amino acid at position 21 with K or N;

a substitution of the amino acid at position 21a with V;

a substitution of the amino acid at position 42 with D, G, K, N, S, or T;

a substitution of the amino acid at position 44 with G, K, P, Q, R, or V;

a substitution of the amino acid at position 45 with N or S;

a substitution of the amino acid at position 47 with C or Q;

a substitution of the amino acid at position 48 with D, E, N, or S;

a substitution of the amino acid at position 49 with A, G, P, or S;

a substitution of the amino acid at position 49a with C;

a substitution of the amino acid at position 49b with N;

a substitution of the amino acid at position 74 with A or F;

a substitution of the amino acid at position 82 with E;

a substitution of the amino acid at position 95j with P;

a substitution of the amino acid at position 110 with N or S;

a substitution of the amino acid at position 111 with I, T, or V;

a substitution of the amino acid at position 113 with G or Y;

a substitution of the amino acid at position 115 with L or V;  
a substitution of the amino acid at position 116 with G, Q, or S;  
a substitution of the amino acid at position 119 with D, F, H, N, Q, or R;  
a substitution of the amino acid at position 121 with D;  
a substitution of the amino acid at position 129 with L or V;  
a substitution of the amino acid at position 131 with A, I, or L;  
a substitution of the amino acid at position 132 with A, P, or T;  
a substitution of the amino acid at position 133 with D, K, N, or Q;  
a substitution of the amino acid at position 145 with A, D, N, or Q;  
a substitution of the amino acid at position 146 with Q or R;  
a substitution of the amino acid at position 150b with A;  
a substitution of the amino acid at position 178 with D or P; or  
a substitution of the amino acid at position 179 with N or V.

143. A detergent composition comprising the modified cellulase of claim 79 and a surfactant.

144. A modified cellulase having endoglucanase activity, comprising a substitution in an amino acid sequence of a cellulase having an amino acid sequence of SEQ ID NO: 1, wherein the substitution is R158G.

145. A detergent composition comprising the modified cellulase of claim 144 and a surfactant.

146. A modified cellulase having endoglucanase activity, comprising a substitution in an amino acid sequence of a cellulase having an amino acid sequence of SEQ ID NO: 1, wherein the substitution is C16M.

147. A detergent composition comprising the modified cellulase of claim 146 and a surfactant.